

Abstract Submitted
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ELM behavior and pedestal structure in high-beta plasmas on DIII-D¹ G.Q. LI, X.Z. GONG, ASIPP, A.M. GAROFALO, L.L. LAO, O. MENEHINI, P.B. SNYDER, G.M. STAEBLER, GA, S.Y. DING, W.F. GUO, J. HUANG, C.K. PAN, J.P. QIAN, Q.L. REN, B.N. WAN, H.Q. WANG, T.Y. XIA, ASIPP, C.T. HOLCOMB, LLNL — The pedestal height and width in the DIII-D high-beta EAST-demonstration plasmas are compared with the EPED1 model. It shows that the pedestal height and width agree with the EPED1 prediction for cases with no/weak ITB, while the pedestal height is much lower than the EPED1 prediction when there is strong ITB. For a couple of similar discharges, when the operation conditions are varied slightly, the ELM frequency change is large. The high frequency ELM cases have low pedestal height and strong ITB, while the low frequency cases have high pressure pedestal height and no ITB appears. The time evolution of the kinetic profiles shows that the pedestal structure correlates with the ITB strength at large radius. As the ITB emerges and builds up, the pedestal height decreases.

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